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therapy and/or chemotherapy administered in the postoperative period was followed by a significantly prolonged survival time ($P = .023$). Pulmonary metastases are present in up to 60%[4] of patients. Distal microembolization is common; therefore adjuvant therapy, even in the absence of pulmonary nodules, would seem appropriate. In conclusion, total surgical resection (which was best performed with the aid of cardiopulmonary bypass through a median sternotomy), with the addition of chemotherapy, radiotherapy, or both, should offer these patients significant palliation and an opportunity for increased length of survival.

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Reply to the Editor:

We thank Babatasi, Massetti, Galateau, and Khayat for their interest in our article. We shall first respond to their comment that the tumor in the second case originated in the atrial wall and extended into the pulmonary vein. Because of space limitations in our article, we did not show the photographs of the operative specimen and histologic findings in detail. On the macroscopic findings, the tumor filled the left lower pulmonary vein and was strongly attached to the wall of the pulmonary vein. Most of the intra-atrial tumor was free from the atrial wall and weakly attached to the atrial wall around the orifice of the pulmonary vein (Fig 1). Therefore, the tumor, the left lung, and the left side of the left atrial wall were excised en bloc.

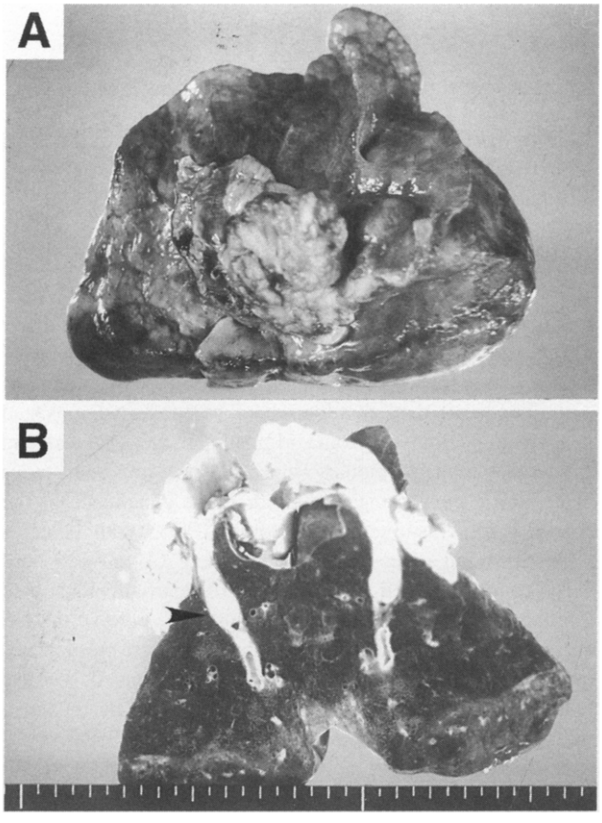

Fig 1. A, Left pneumonectomy specimen with the tumor mass and the left atrial wall. **B,** Macroscopic finding of the left lower pulmonary vein and the tumor. The tumor is strongly attached to the wall of the pulmonary vein *(arrow).*

Fig 2. Histologic findings at the portion of the tumor strongly attached to the vein wall.

Histologic examination revealed that the tumor arose from the media of the pulmonary vein at the point where it was strongly attached (Fig 2).

Second, concerning surgical approach, they recommend a median sternotomy. We have used sternotomies in two cases of resected leiomyosarcoma originating in the left atrial walls close to the mitral anuli. In the reported case, the intra-atrial portion of the tumor was extremely large and filled most of the left atrium and the left lower pulmonary vein. Compared with our previous experiences, it seemed difficult to excise the tumor, the left atrial wall, and the left lung en bloc through a median sternotomy. Moreover, according to preoperative findings of computed tomography, magnetic resonance imaging, cineangiography, and echocardiography, the tumor appeared to be attached to only the left wall of the atrium around the orifice of the lower pulmonary vein. Therefore we chose the left thoracotomy approach. If the tumor had been on the right side of the left atrium, we would have chosen a median sternotomy as in the previous report.[1] Visualization of the remaining portion of the left atrial wall after resection of the tumor was good and the repair of the left atrium was very easy. Although it is not clear whether Babatasi and colleagues recommend a median sternotomy referring to their own experiences using both approaches, the surgical approach for this kind of lesion should be flexible, based on the preoperative findings of location and extension of the tumor.

Finally, efficacy of chemotherapy and/or radiation after surgery is still controversial for primary sarcoma of lung.[2-4] Although multimodality treatments are used with some success in advanced tumors, insufficient numbers of cases have been reported to confirm the benefit of adjuvant therapy after radical resection. At this moment, the two patients from our report are well and have no evidence of recurrence 30 months and 20 months after the operations, respectively.

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12/8/91859

The addition of saphenous vein graft to the left anterior descending artery in left internal thoracic artery hypoperfusion syndrome

To the Editor:

We read with interest the article on the surgical management of the left internal thoracic artery (LITA) hypoperfusion syndrome by Zünd and colleagues, published in the September 1997 issue of *The Journal of Thoracic Cardiovascular Surgery*.[1] We agree that the addition of a saphenous vein graft (SVG) to the hypoperfused left anterior descending (LAD) artery territory despite LITA graft implantation is beneficial to the patient, especially in the acute phase. Although there was no mortality from the ITA hypoperfusion syndrome in this series, it is a serious condition that is potentially lethal,[2,3] and reoperation is associated with increased morbidity.[4] In our practice, the addition of an SVG to a hypoperfused LAD is performed during the original period of cardioplegic arrest (along with the other elective grafts) and before clinical signs of ITA hypoperfusion syndrome occur. We implant an additional SVG to the LAD when the LITA is small and the flow is adequate but suboptimal. We are very pleased to note that the long-term flow rate of the LITA and SVG are satisfactory and there are no negative effects of one graft on the other, because we have not been able to carry out these measurements in our unit. The distance between the ITA graft and the suppplemental SVG was not discussed in this article, but recently it was shown that an increase in this distance improves the LITA graft survival.[5] We believe that our approach of prophylactically adding an SVG to a potentially hypoperfused LAD territory is less traumatic to the patient and to the surgical team.

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